UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

MAILED

Application Number: 09/429,174
Filing Date: October 28, 1999
Appellant(s): HUANG ET AL.

SEP 3 0 2005

Technology Center 2100

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 6/1/2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or

be directly affected by or have a bearing on the decision in the pending appeal is contained in the

brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5)   Summary of Invention

The summary of invention contained in the brief is correct.

(6)   Issues

The appellant's statement of the issues in the brief is correct.

(7)   Grouping of Claims

Appellant's brief includes a statement that claims 1-18 do not stand or fall together and

provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8)   Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9)   Prior Art of Record

4604708	LEWIS	8-1986
5251304	SIBIGTROTH	10-1993
5313639	CHAO	5-1994
5594319	THANDIWE	1-1997

(10)   Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3, 4, 7, 8, 10, 12, 13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lewis US 4,604,708 in view of Sibigtroth US 5,251,304.

Claims 2, 5, 9, 11, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lewis US 4,604,708 in view of Sibigtroth US 5,251,304 in view of Thandiwe US

5,594,319.

Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis

US 4,604,708 in view of Sibigtroth US 5,251,304 in view of Chao US 5,313,639.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
manner in which the invention was made.

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3, 4, 7, 8, 10, 12, 13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lewis US 4,604,708 in view of Sibigtroth US 5,251,304.

Only the first claim of each group identified by the applicant on page 6 of the appeal brief

will be specifically addressed in this answer. For details of the rejection of the remaining

claims, which applicant has identified as standing or falling with claims 1, 4, 6, 7, or 8,

see Appendix A.

As per claims 1, Lewis discloses a device to be used in conjunction with an electronic

device, (Col 3 line 4). Lewis teaches a secure "power on" device which requires a correct

password before allowing power to attached electronics. In the case of a computer, this

makes the device "pre-boot". Lewis discloses that the controller is connected to electrical

power even though the controller is not powering the electronic device, (Col 3 line 25).

Lewis discloses that the electronic device is energized when a user inputs the correct

password, (Col 3 lines 52-56). Lewis teaches that the security controller comprises a

nonvolatile password memory, (PROM), for storing at least one user password, (Col 3

lines 50-53). Lewis teaches a password input circuit, a digital logic circuit, and an output

circuit (Microcomputer), (Col 3 lines 50-53). The digital logic circuit compares a

received password with any user passwords stored in memory, (Col 3 line 50). Lewis

shows the output circuit for transmitting a signal to enable the electronic device with

power if the received password matches the stored password, (Col 3 lines 52-56).

Lewis does not disclose that an integrated circuit comprises the pre-boot security

controller. Since Lewis does not give structural details, one of ordinary skill in the art is

left to select an appropriate physical implementation of the single circuit.

Sibigtroth teaches it is desirable to build a controller and memory on an integrated circuit

package (Sibigtroth Col 2 lines 19-25). Sibigtroth teaches an integrated circuit is secure

by defining a limited range of access. (Col 5 lines 5-12). It would be obvious to one

skilled in the art to integrate the controller and memory of Lewis on the specific

integrated circuit structure of Sibigtroth because of its small size, decreased access and

increased security.

As per claim 4, Lewis teaches an input circuit coupled to the keypad including an

interface to the keyboard and to the Microcontroller for receiving a password to be

compared with stored passwords, (Col 3 line 48, Fig 1; 24, 25, 10).

As per claim 7, the applicants definition of a state machine on page 29 of the appeal brief

is acceptable. Lewis teaches a state machine because the reference has distinct states.

Lewis teaches a blank start state where nothing is happening, an input state where the

user is entering a password, a transition state where the Microcontroller compares the

input password to the stored password, and finally a result state in which the computer is

powered on or not.

As per claim 8, Lewis teaches the output circuit provides a signal, which indicates the

existence of the security operating mode (alarm), (Col 4 line 61, Col 5 line 1, Fig 1; 10,

28, 26).

Claims 2, 5, 9, 11, 14, and 18 are rejected by Lewis in view of Sibigtroth. The applicant

has stated that these claims stand or gall with claims 1, 3, 4, 7, 8, 10, 12, 13, 16, and 17

therefore no further argument is proposed.

Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis

US 4,604,708 in view of Sibigtroth US 5,251,304 in view of Chao US 5,313,639.

As per claim 6, Lewis discloses a security controller that receives a user password and

matches it to that in memory, (Col 3 line 50).

Lewis does not disclose taking input from the keypad in application operating mode.

Chao discloses a keypad that prevents booting of the computer and is of an analogous art

to the instant specification. Chao teaches a security mode wherein the computer is locked

down, and after the appropriate password is keyed in the computer boots and is able to

boot and is in application mode. To utilize the keypad pressings, the data must be

recorded, (Col 3 line 33, 44).

It would be obvious to one skilled in the art to modify Lewis's security controller with

Chao's application mode keypad operation because it obviates the need to turn off the

computer (Col 3 line 37).

(11) *Response to Argument*

The Examiner has reviewed the declaration of the inventor Brian Oh. The declaration, on

paper 14, relates to the degree of security, not whether or not security exists. The relative

amount of security is not reflected in the claim limitations.

In response to applicant's argument, paragraph 14, that Lewis, Chao, and Thandiwe are

nonanalogous art, it has been held that a prior art reference must either be in the field of

applicant's endeavor or, if not, then be reasonably pertinent to the particular problem

with which the applicant was concerned, in order to be relied upon as a basis for rejection

of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir.

1992). In this case, all art concerned is reasonable pertinent and provide security for

electrically powered devices.

In response to applicant's arguments in paragraph 21, against the references individually,

one cannot show nonobviousness by attacking references individually where the

rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

1986).

In response to paragraphs 41 - 43 of the declaration of Brian Oh, the combination of

Lewis and Sibigtroth does *not* result in an integrated circuit package with no non-volatile

memory. The combination would result in a non-volatile PROM taught in Lewis

implemented in the physical integrated circuit of Sibigtroth.

The Examiner has reviewed page 20 of the appeal brief, Lewis teaches that the security

controller comprises a nonvolatile password memory, (PROM), for storing at least one

user password, (Col 3 lines 50-53).

Lewis does not disclose that an integrated circuit comprises the pre-boot security

controller. Since Lewis does not outline the physical structure of his invention, only the

logical operation, one of ordinary skill in the art is left to select an appropriate physical

implementation of his circuit. Sibigtroth teaches a typical physical implementation.

Sibigtroth teaches it is desirable to build a controller and memory, including non-volatile

memory, on an integrated circuit package (Sibigtroth Col 2 lines 19-25).

The applicants argue against motivation for combination of Lewis and Sibigtroth, on

page 22 of the appeal brief.

In response to applicant's argument that there is no suggestion to combine the references,

the examiner recognizes that obviousness can only be established by combining or

modifying the teachings of the prior art to produce the claimed invention where there is

some teaching, suggestion, or motivation to do so found either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art. See

In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958

F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, It would be obvious to one

skilled in the art to integrate the controller and memory of Lewis on the specific

integrated circuit structure of Sibigtroth because of its small size, decreased access and

increased security. This knowledge is generally available to one of ordinary skill in the

art. Sibigtroth teaches an IC for an electronic device, (Col 2 lines 50-64).

The applicant's argument for patentability of claims 4, and 13 on page 25 of the appeal

brief states that Lewis fails to disclose a security keypad. The applicant points to

examples of security keypads in the instant specification as further proof Lewis does not

have a security keypad. The examples in the instant specification are not incorporated

into the claims. The examiner is required to make the broadest reasonable interpretation

of the claims. The examiner relies on the prior art, Lewis does teach an input circuit

coupled to the keypad including an interface to the keyboard and to the Microcontroller

for receiving a password to be compared with stored passwords, (Col 3 line 48, Fig 1;

24, 25, 10).

The applicant's argument for patentability of claims 7, and 16 on page 28 of the appeal

brief states that Lewis fails to disclose a state machine. The applicant's definition of a

state machine on page 29 of the appeal brief is acceptable. Lewis teaches a state

machine in the form of a microprocessor because the processor has distinct states. Lewis

teaches a blank start state where nothing is happening, an input state where the user is

entering a password, a transition state where the Microcontroller compares the input

password to the stored password, and finally a result state in which the computer is

powered on or not. The examiner argues that *any* computer would meet the definition of

state machine found on page 29 of the appeal brief.

The applicant's argument for patentability of claims 8, and 17 on page 31 of the appeal

brief states that Lewis combined with Sibigtroth fails to disclose an output signal which

indicates the existence of the security operating mode. The applicant points to the

example in the instant specification of why Lewis in combination with Sibigtroth fails to

disclose the output signal indicating the security operating mode. This example is not

incorporated into claims 8 and 17. The examiner is required to make the broadest

reasonable interpretation of the claims. The examiner relies on the prior art, Lewis

teaches the output circuit provides a signal, which indicates the existence of the security

operating mode (alarm), (Col 4 line 61, Col 5 line 1, Fig 1; 10, 28, 26).

The applicant's argument for patentability of claims 6, and 15 on page 35 of the appeal

brief states that Lewis in combination with Sibigtroth and Chao fail to disclose a security

controller that transitions from a security state to an application state and preserves data

about the pressings on the keyboard. The applicant relies on examples from the instant

specification, which are not encompassed in the claims. The examiner relies on the cited

prior art, Lewis discloses a security controller that receives a user password and matches

it to that in memory, (Col 3 line 50).

Lewis does not disclose taking input from the keypad in application operating mode.

Chao discloses a keypad that prevents booting of the computer and is of an analogous art

to the instant specification. Chao teaches a security mode wherein the computer is locked

down, and after the appropriate password is keyed in the computer boots and is able to

boot and is in application mode. To utilize the keypad pressings, the data must be

recorded, (Col 3 line 33, 44).

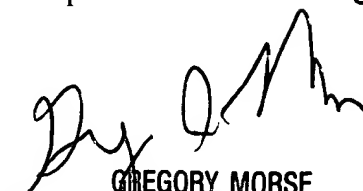For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Christopher J. Brown

September 6, 2005

Conferees: Gregory Morse
            Kim Vu

GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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Appendix A: Final Rejection

DETAILED ACTION

Response to Arguments

1. In response to the applicant's argument of the Lewis patent, the security of the system is not relevant. The security of the system is not related to the claims of the current application.

In response to the applicant's argument of the Chao patent, the security of the system is not relevant. The security of the system is not related to the claims of the current application.

In response to the applicant's argument of the Thandiwe patent, the security of the system is not relevant. The security of the system is not related to the claims of the current application.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Response to Amendment

2. The amendment is insufficient to overcome the rejection of claims 1-18 based upon inclusion of Sibigtroth U.S. Patent 5,251,304 as set forth in the Office action attached

below because Sibigtroth discloses a method of including a controller in an integrated

circuit.

Specification

3. The disclosure is objected to because it contains an embedded hyperlink and/or other

form of browser-executable code. Applicant is required to delete the embedded hyperlink

and/or other form of browser-executable code. See MPEP § 608.01. The code referred

to is on page 15 line 21. Please review instant specification for further embedded

hyperlinks. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
manner in which the invention was made.

Claims 1, 3, 4, 7, 8, 10, 12, 13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lewis US 4,604,708 in view of Sibigtroth US 5,251,304.

As per claims 1, and 10, Lewis discloses a device to be used in conjunction with an

electronic device, (Col 3 line 4). Lewis discloses that the controller is connected to

electrical power even though the controller is not powering the electronic device, (Col 3

line 25). Lewis discloses that the electronic device is energized when a user inputs the correct password, (Col 3 lines 52-56). Lewis teaches that the security controller comprises a nonvolatile password memory, (PROM), for storing at least one user password, (Col 3 lines 50-53). Lewis teaches a password input circuit, a digital logic circuit, and an output circuit (Microcomputer), (Col 3 lines 50-53). The digital logic circuit compares a received password with any user passwords stored in memory, (Col 3 line 50). Lewis shows the output circuit for transmitting a signal to enable the electronic device with power if the received password matches the stored password, (Col 3 lines 52-56).

As per claims 3, and 12, there is at least one user password, and at least one supervisor password, (secondary password), (Col 4 lines 34-37).

As per claims 4, and 13, the input circuit is a keypad interface (Mc) that is coupled to a keypad for receiving a password to be compared with stored passwords, (Col 3 line 48).

As per claims 7, and 16, the digital logic circuit is a state machine (Microcomputer), (Col 3 line 60).

As per claims 8, and 17, the output circuit provides a signal, which indicates the existence of the security operating mode (alarm), (Col 4 line 61, Col 5 line 1).

Lewis does not disclose that an integrated circuit comprises the pre-boot security controller.

Sibigtroth discloses a controller and memory as part of an integrated circuit (Sibigtroth Col 2 lines 19-25). It would be obvious to one skilled in the art to construct the microcomputer of Lewis in the method of Sibigtroth because it is more compact.

5. Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis US 4,604,708 in view of Sibigtroth US 5,251,304 in view of Chao US 5,313,639. As per claims 6, and 15, Lewis discloses a security controller that receives a user password and matches it to that in memory, (Col 3 line50).

Lewis as modified above does not disclose taking input from the keypad in application operating mode.

Chao discloses a keypad that prevents booting of the computer and is of an analogous art to the instant specification. To utilize the keypad pressings, the data must be recorded, (Col 3 line 33, 44).

It would have been obvious to one skilled in the art to modify Lewis's security controller with Chao's application mode keypad operation because it obviates the need to turn off the computer (Col 3 line 37).

6. Claims 2, 5, 9, 11, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis US 4,604,708 in view of Sibigtroth US 5,251,304 in view of Thandiwe US 5,594,319.

As per claims 2, and 11, Lewis does not disclose that the password memory is electronically rewritable, (Col 3 lines 8-11).

Thandiwe discloses the password memory to be EEPROM, which is rewritable memory.

It would be obvious to one skilled in the art to modify Lewis's security controller with Thandiwe's EEPROM so that a password may be changed on a regular basis to enhance security.

As per claims 5, and 14, Lewis discloses a keypad interface, and that the interface may receive passwords. Lewis fails to disclose the digital logic recording such passwords. Thandiwe discloses choosing a new password and storing it in the password memory, (Col 3 line 16).

It would be obvious to one skilled in the art, to modify Lewis's security controller with Thandiwe's password storage so that a password may be changed on a regular basis to enhance security.

As per claims 9 and 18, Lewis does not disclose a "System Management Bus" to receive user passwords to store in memory.

Thandiwe discloses receiving a password over a system management bus, (Col 2 lines 20-25).

It would be obvious to one skilled in the art, to modify Lewis's security controller with Thandiwe's system management because an internal SMBus connection is more secure than a line or cable connection.

Conclusion

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Christopher J Brown whose telephone number is 703-305-

8023. The examiner can normally be reached on 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gregory Morse can be reached on 703-308-4789. The fax phone numbers

for the organization where this application or proceeding is assigned are 703-746-7239

for regular communications and 703-746-7239 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

Christopher J. Brown

September 6, 2005